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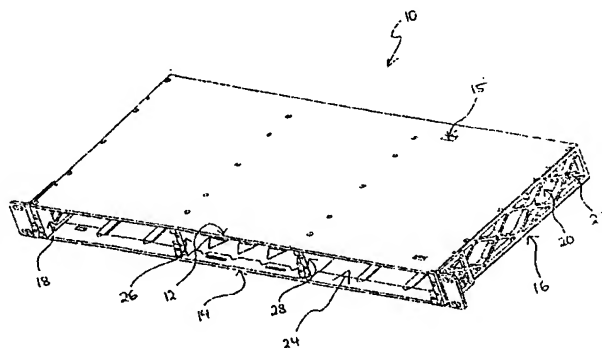
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(54) Title: WDM MODULE



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(57) Abstract: A WDM module comprising a plurality of WDM laser assemblies is disclosed, each laser assembly comprising a laser source, wherein the WDM is arranged, in use, in a manner such that a controlled temperature environment is created around the laser sources of the laser assemblies, the controlled temperature environment being defined by a high and a low reference temperature value and having a temperature range equal to or smaller than an inherent operation temperature range of the laser sources, and in a manner such as to be capable of creating the controlled temperature environment around the laser sources while the WDM module is subjected to an outside temperature ambient having a temperature range larger than the inherent operation temperature range of the laser sources. The present invention also relates to a regenerator node for a WDM network, the node comprising an east network interface unit arranged, in use, to demultiplex an incoming WDM optical signal and convert the incoming WDM optical signal into a plurality of electrical channel signals, and to convert and multiplex a plurality of electrical channel signals into an outgoing WDM optical signal; a west interface unit arranged, in use, to demultiplex an incoming WDM optical signal and convert the incoming WDM optical signal into a plurality of electrical channel signals, and to convert and multiplex a plurality of electrical channel signals into an outgoing WDM optical signal; and a regeneration unit disposed between the east and west interface units for regenerating the electrical channel signals utilising at least 2R regeneration.



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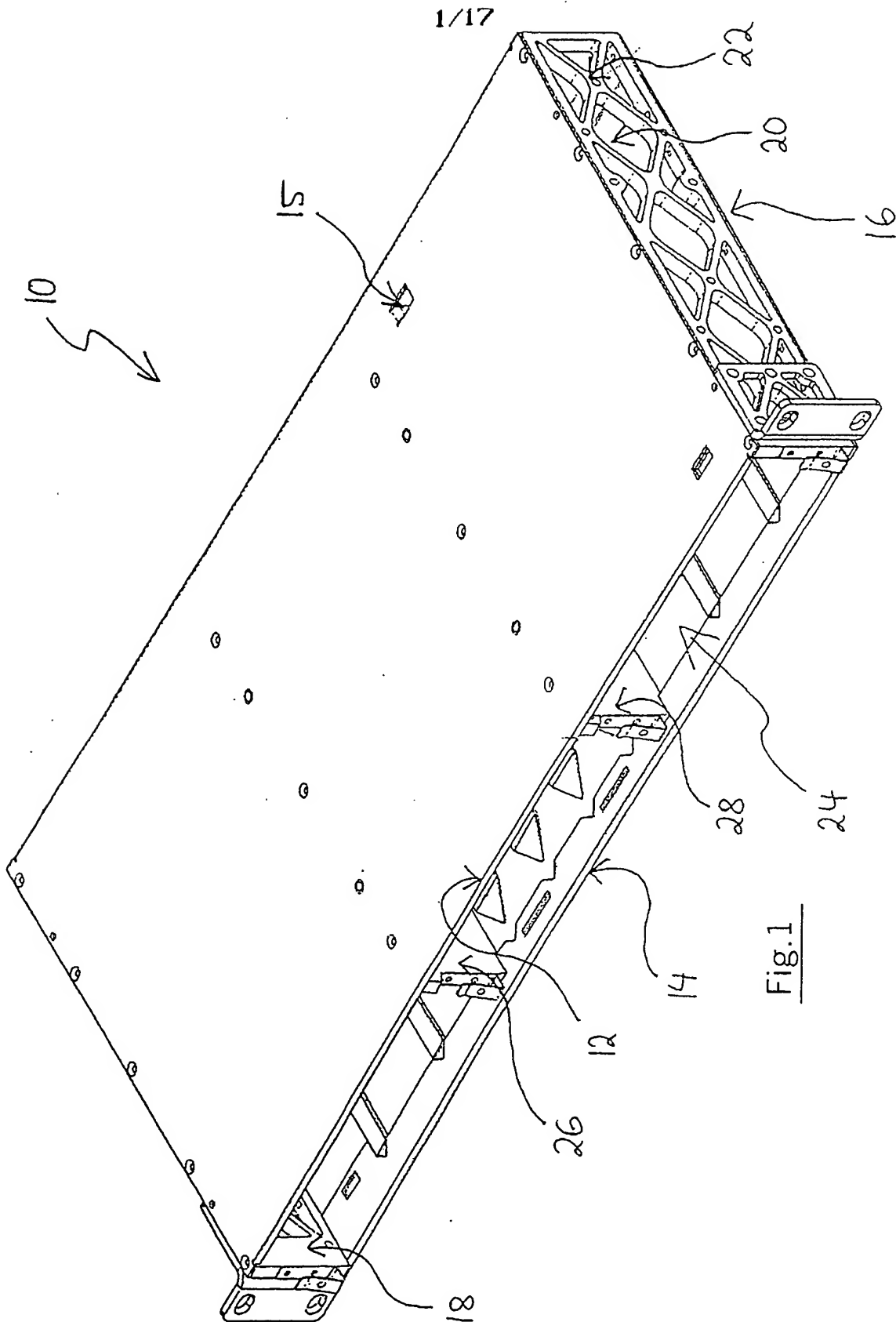


Fig.1

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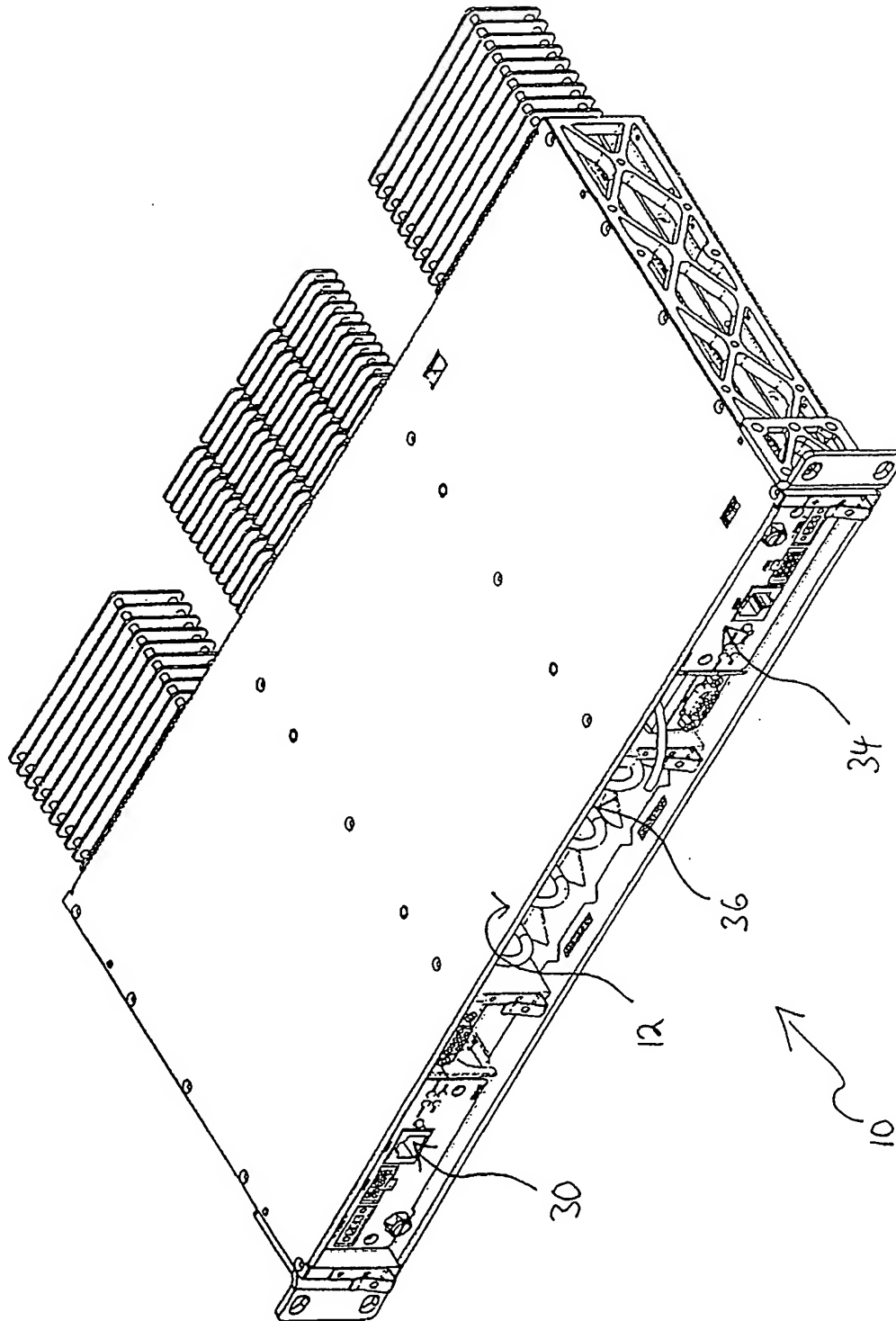


Fig. 3

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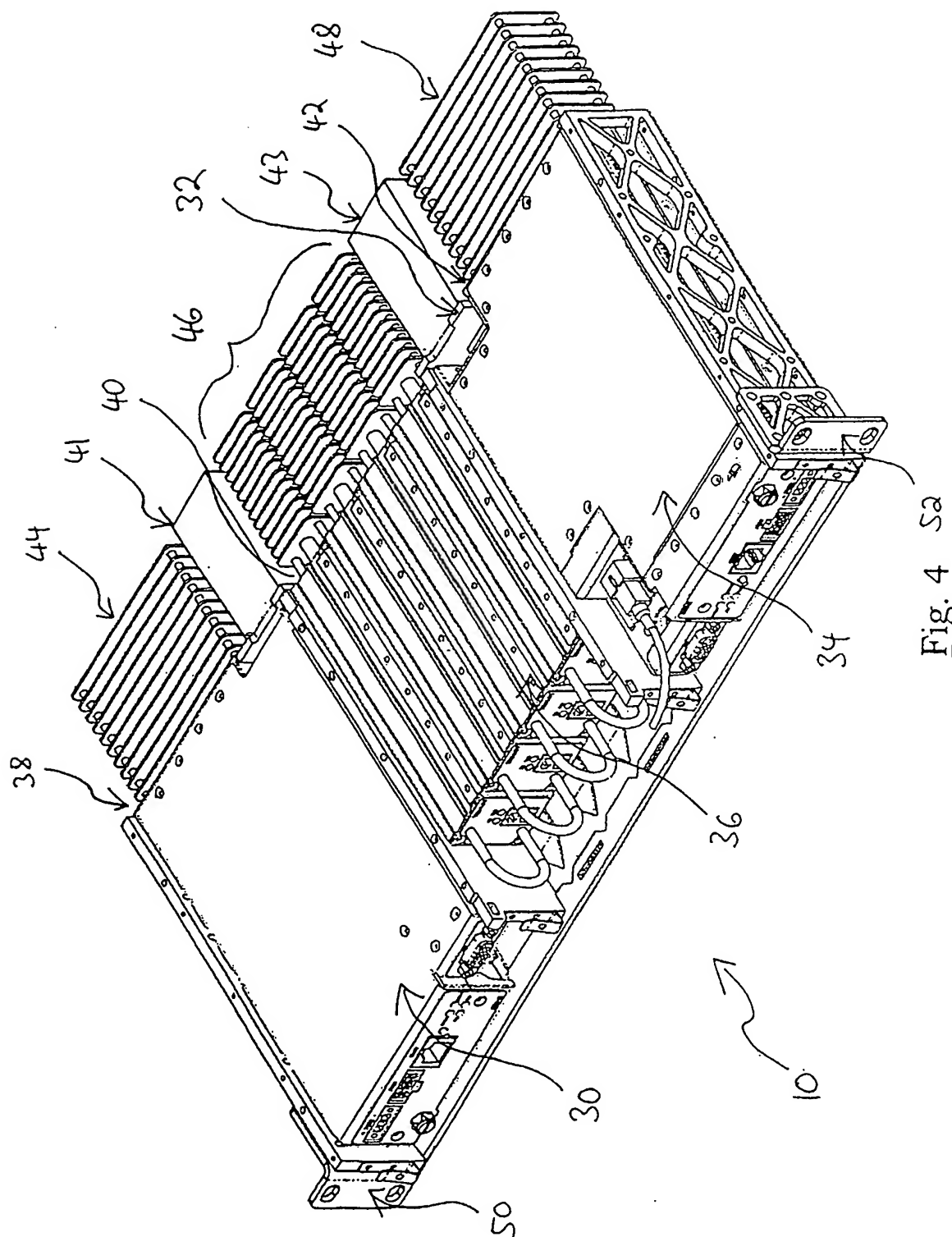


Fig. 4 S2

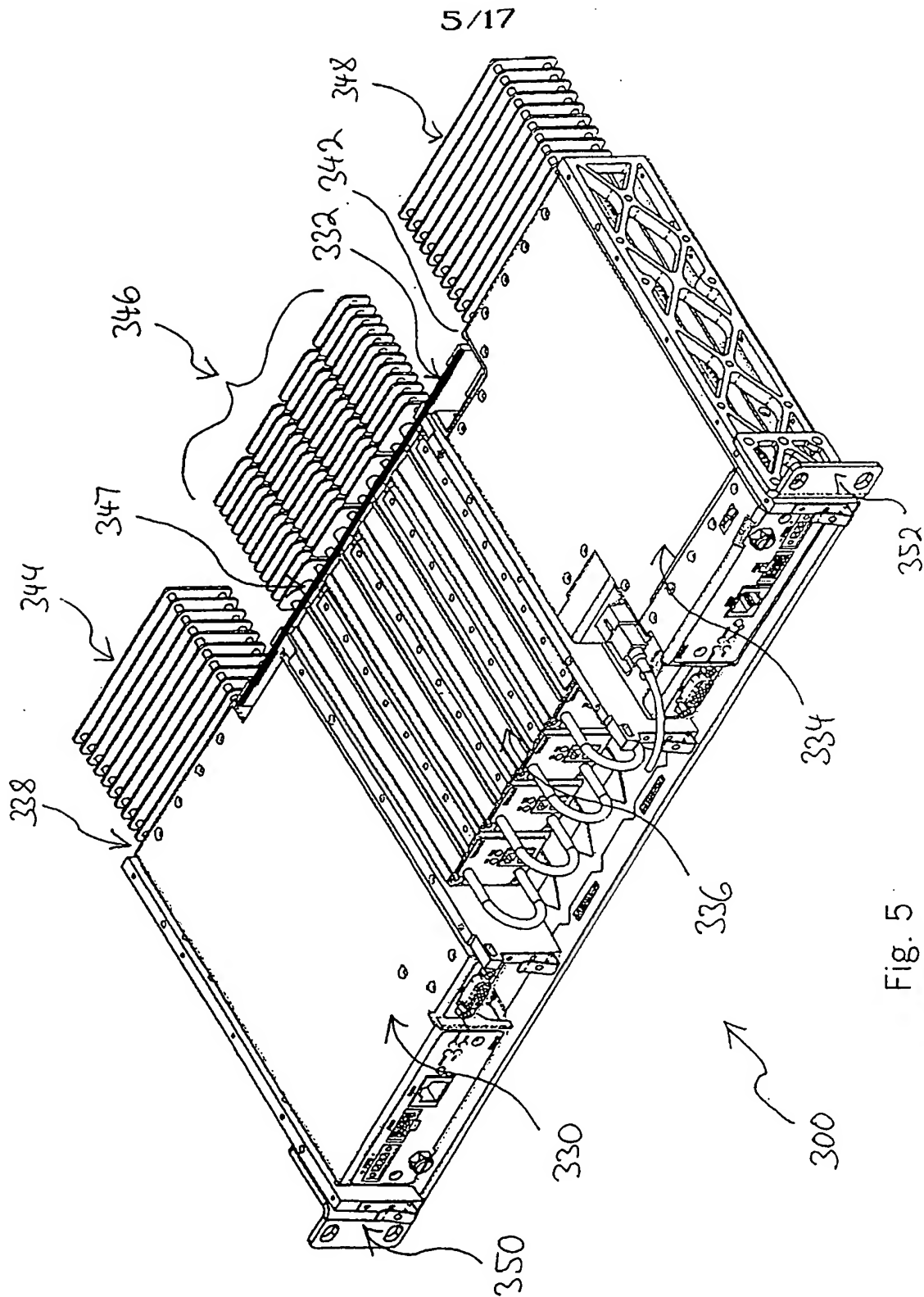
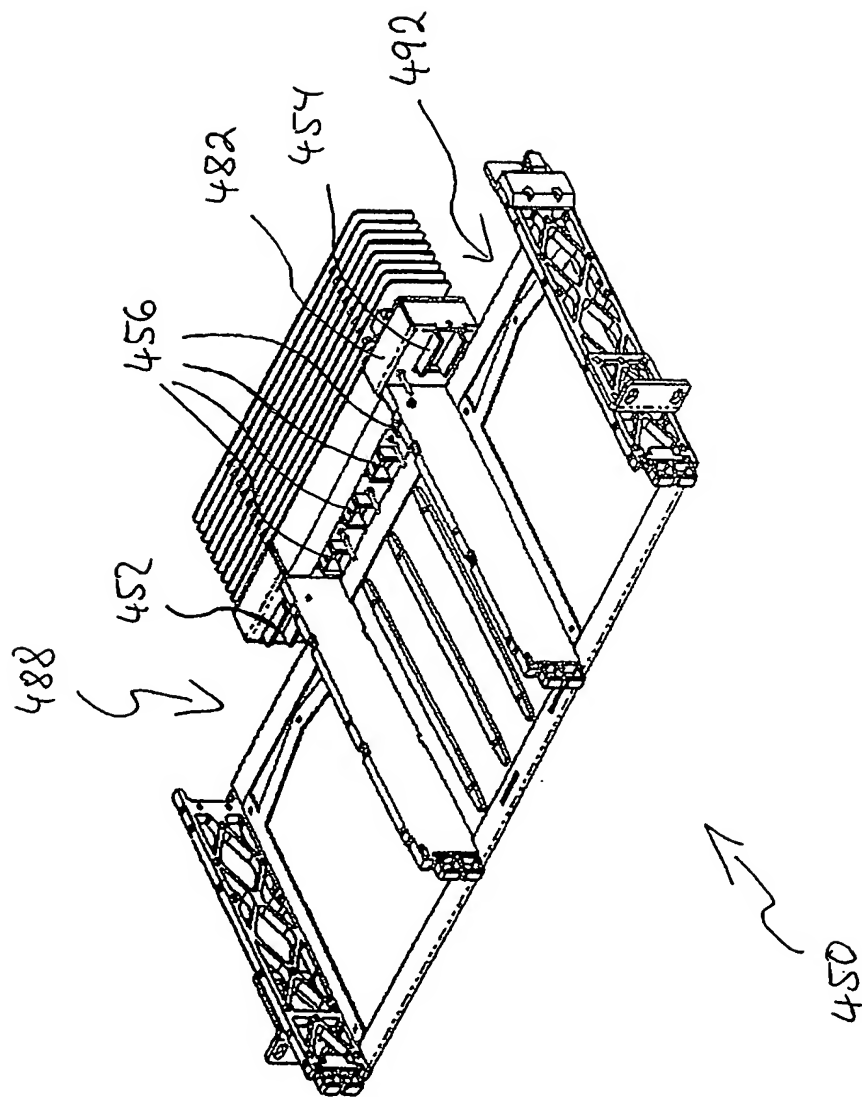


Fig. 5

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Fig. 6

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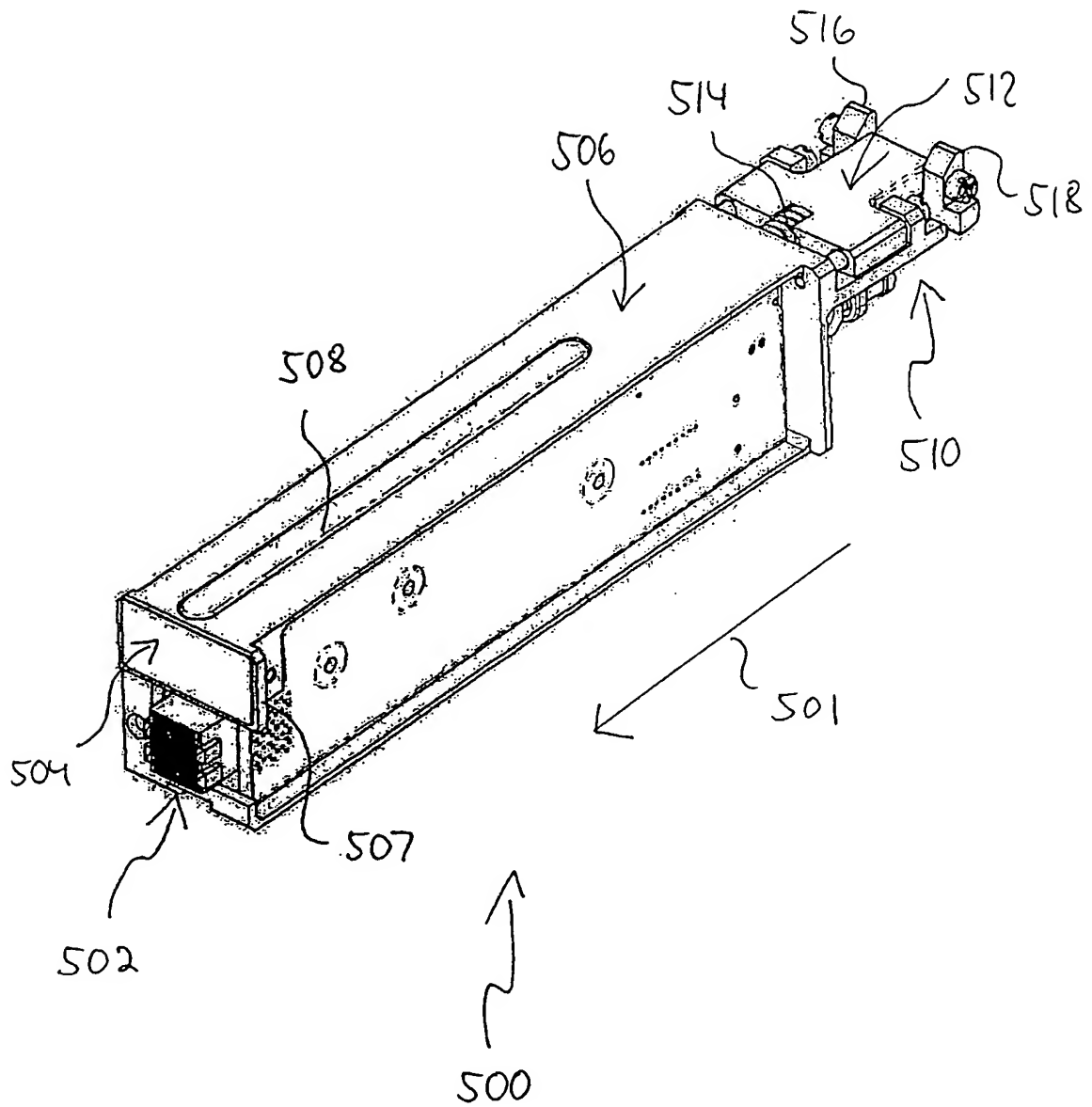
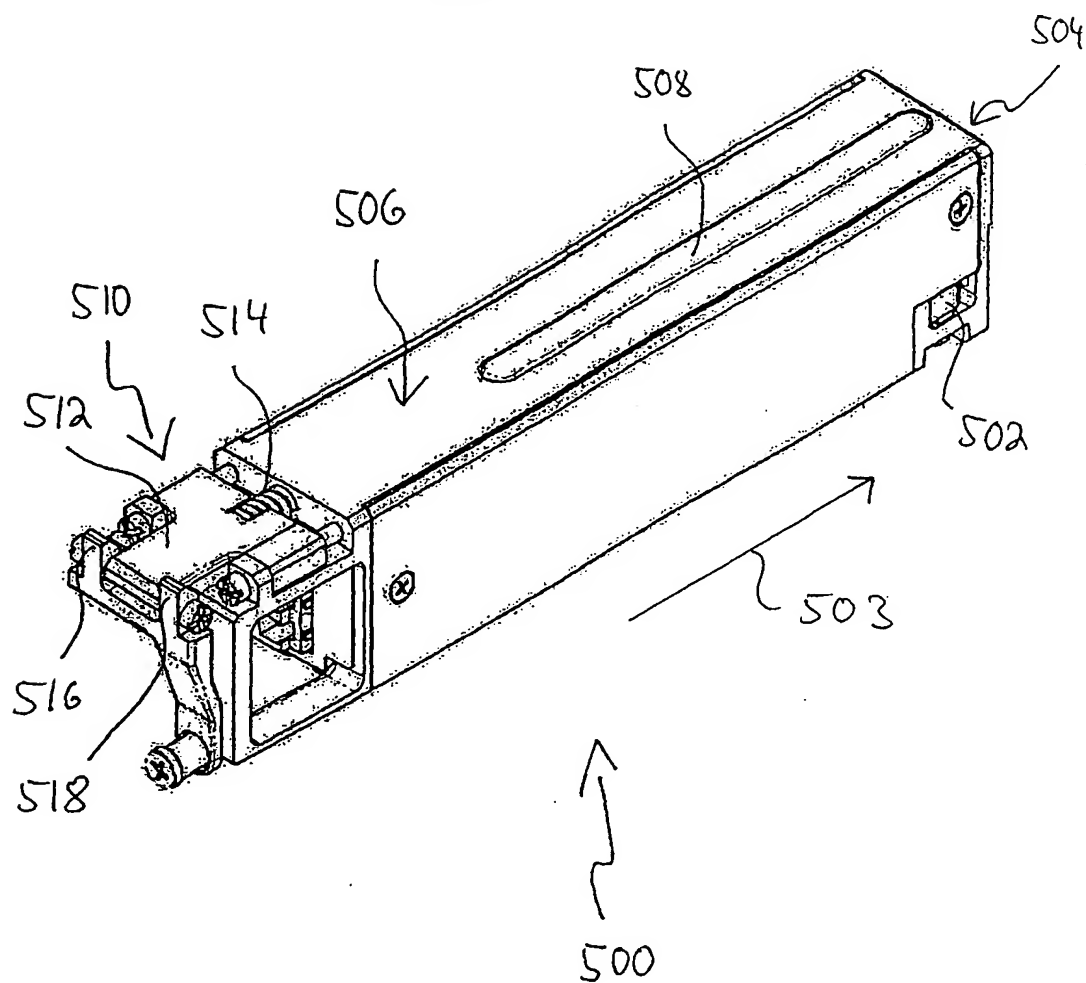
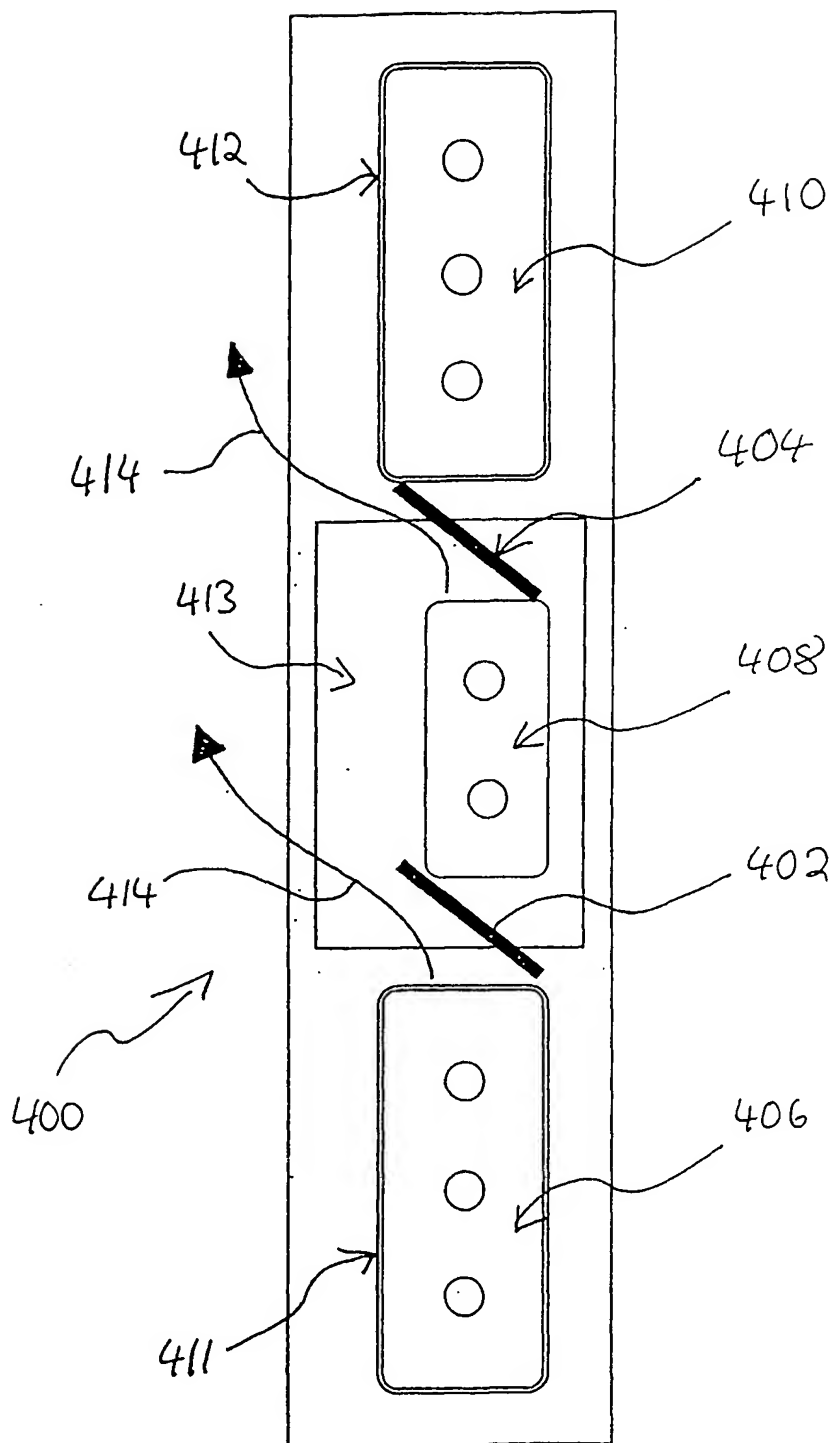


Fig. 7

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Fig. 8

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Fig. 9

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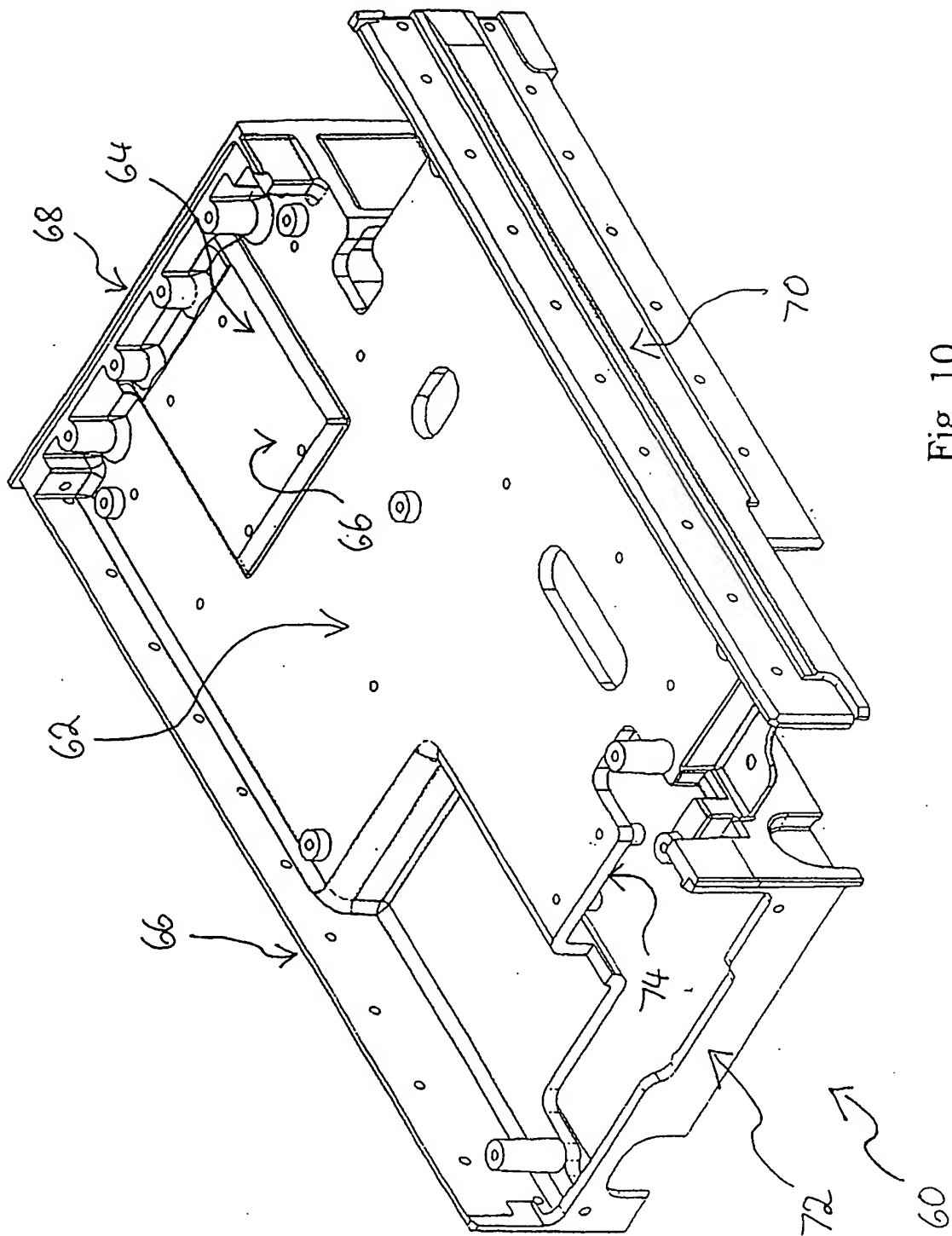


Fig. 10

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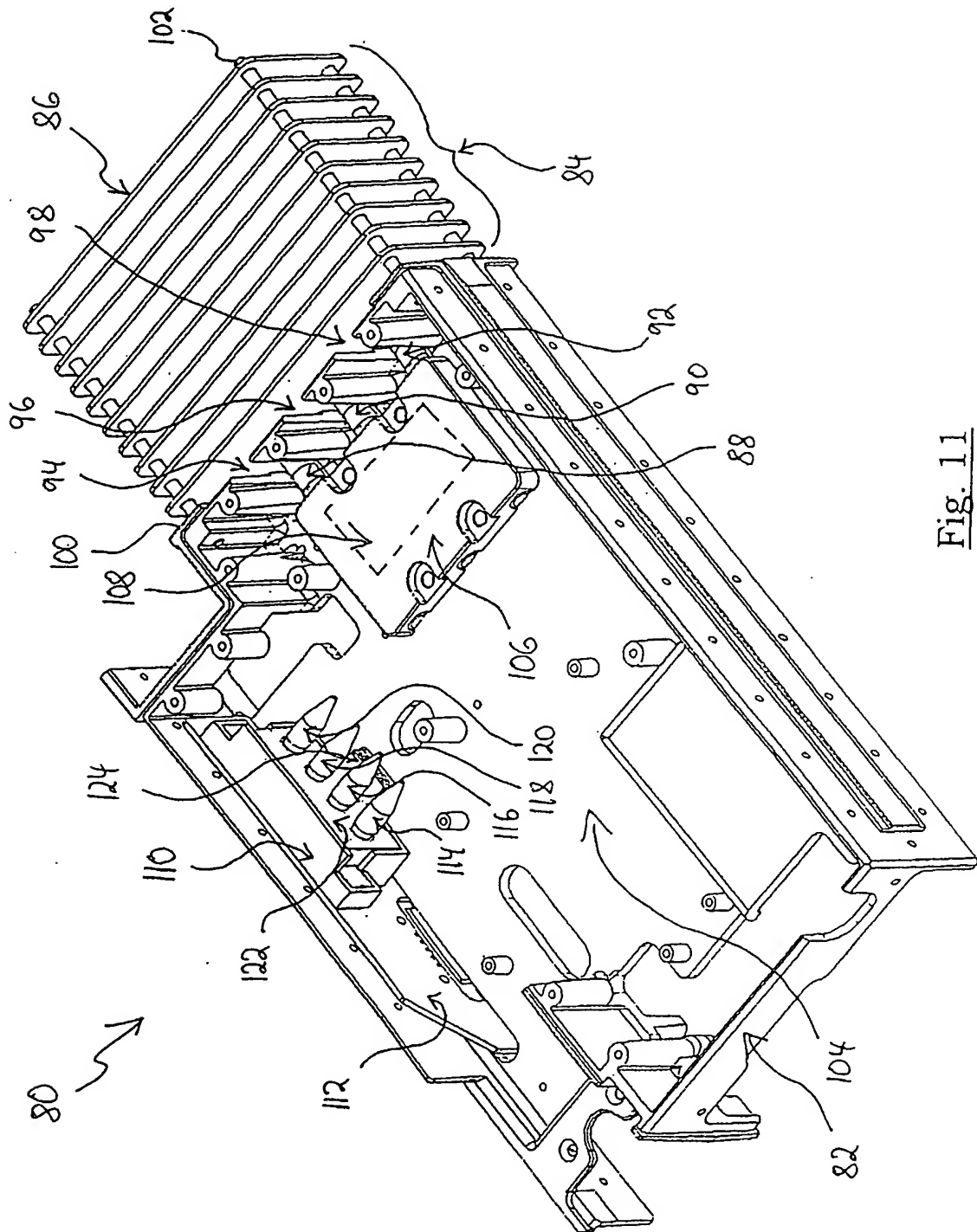
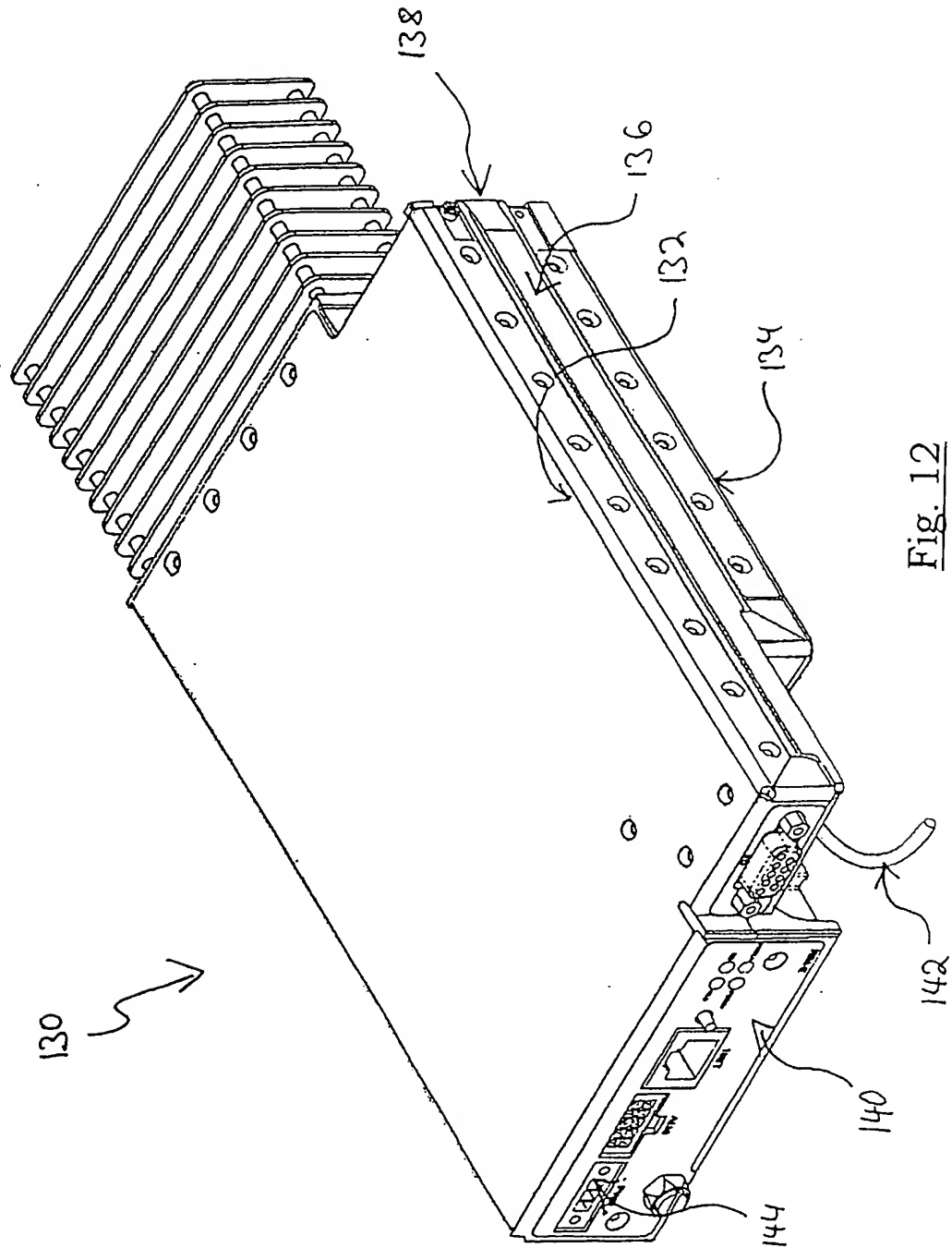
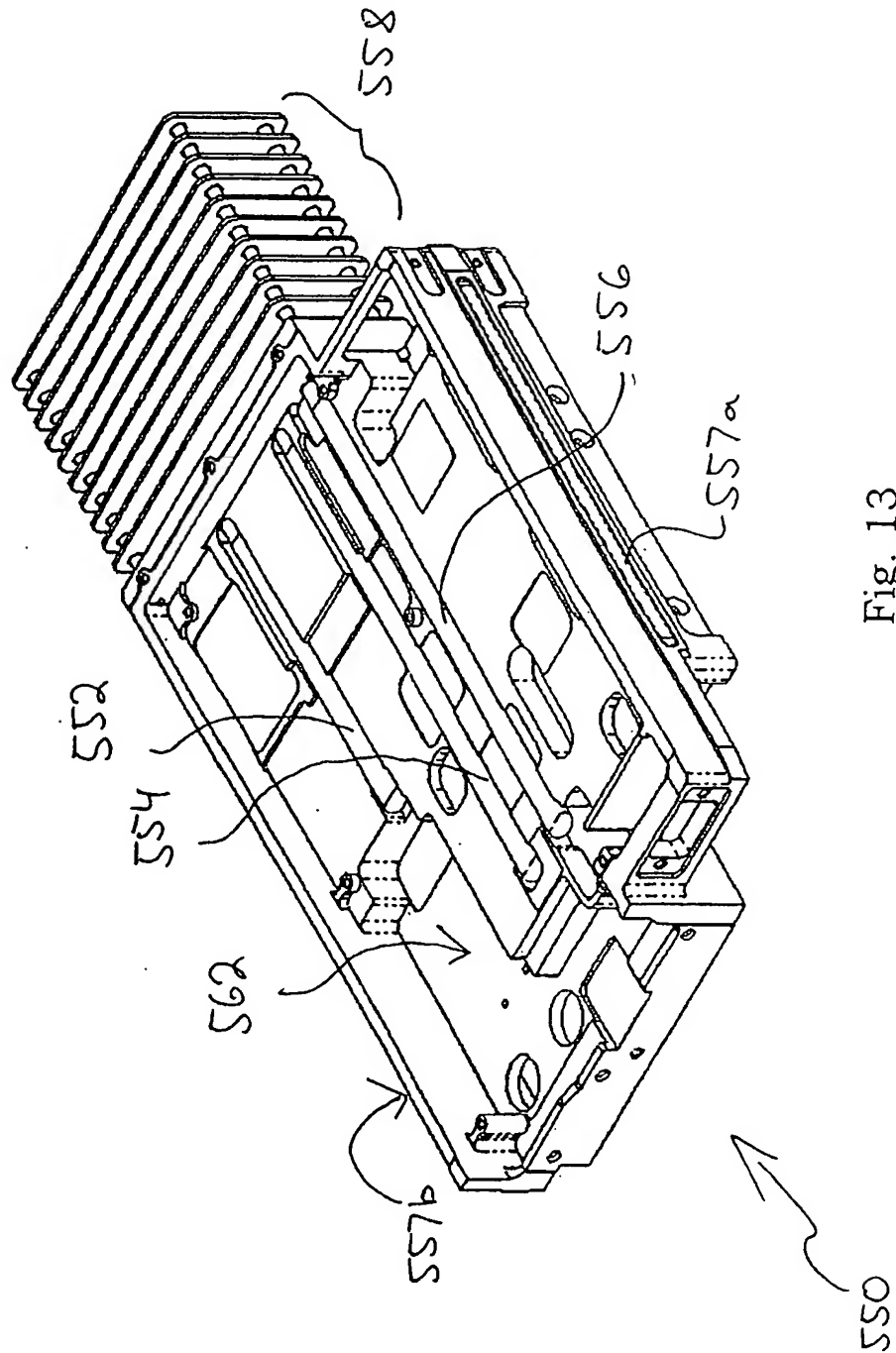


Fig. 11



Fig. 13

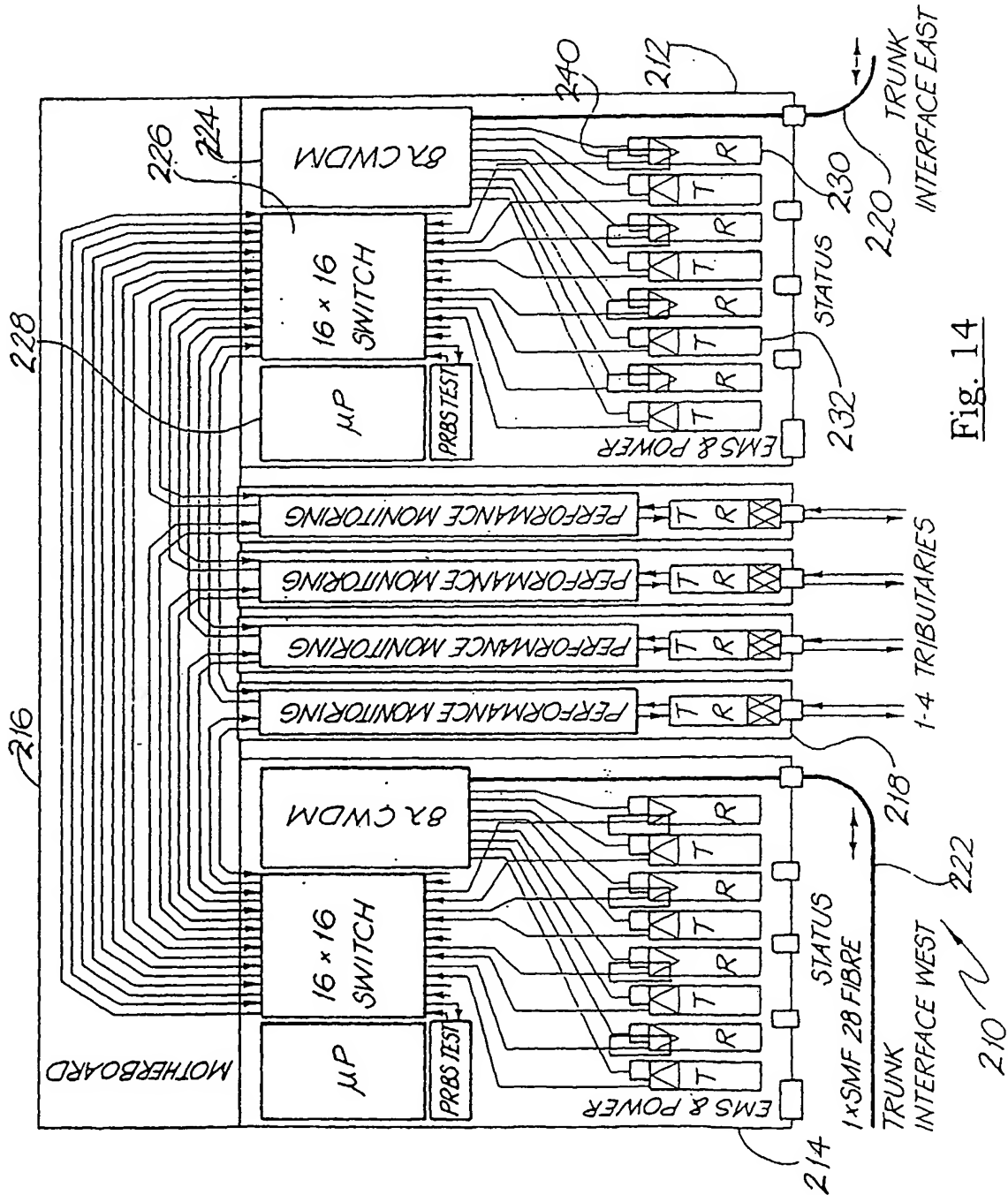
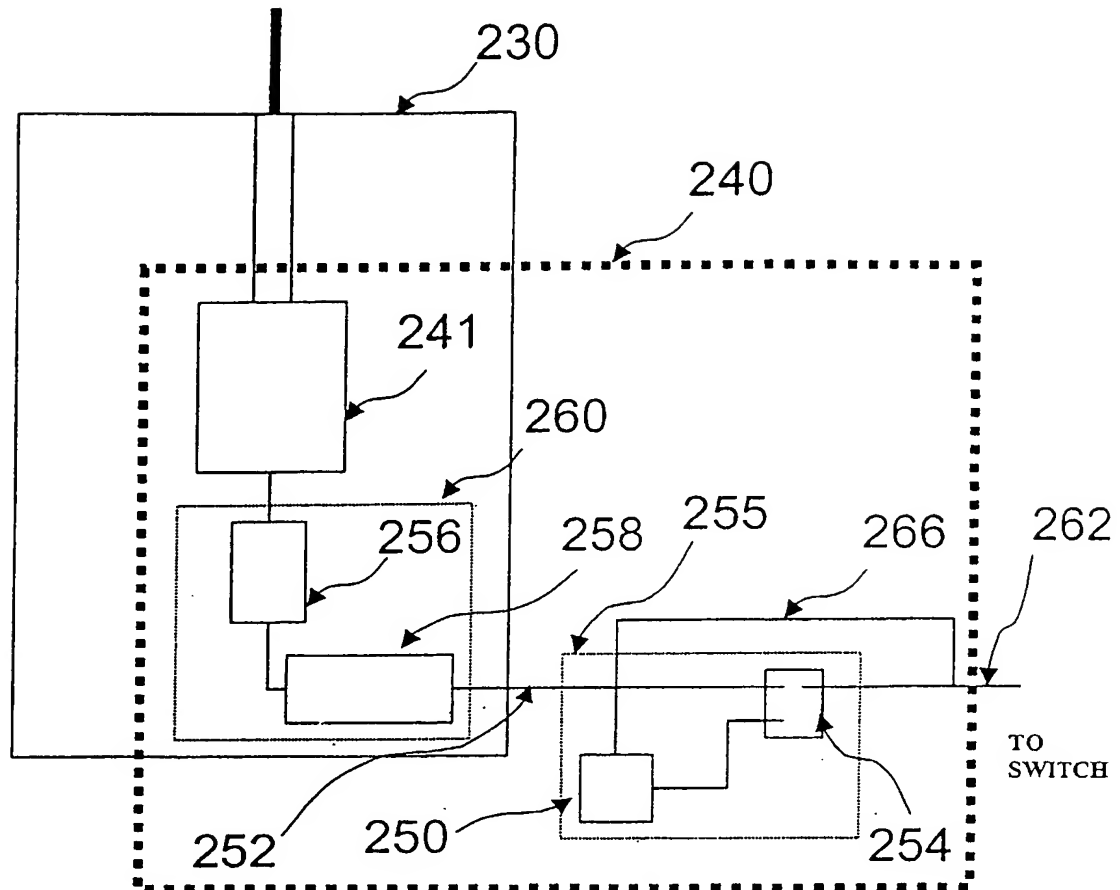


Fig. 14

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Fig. 15

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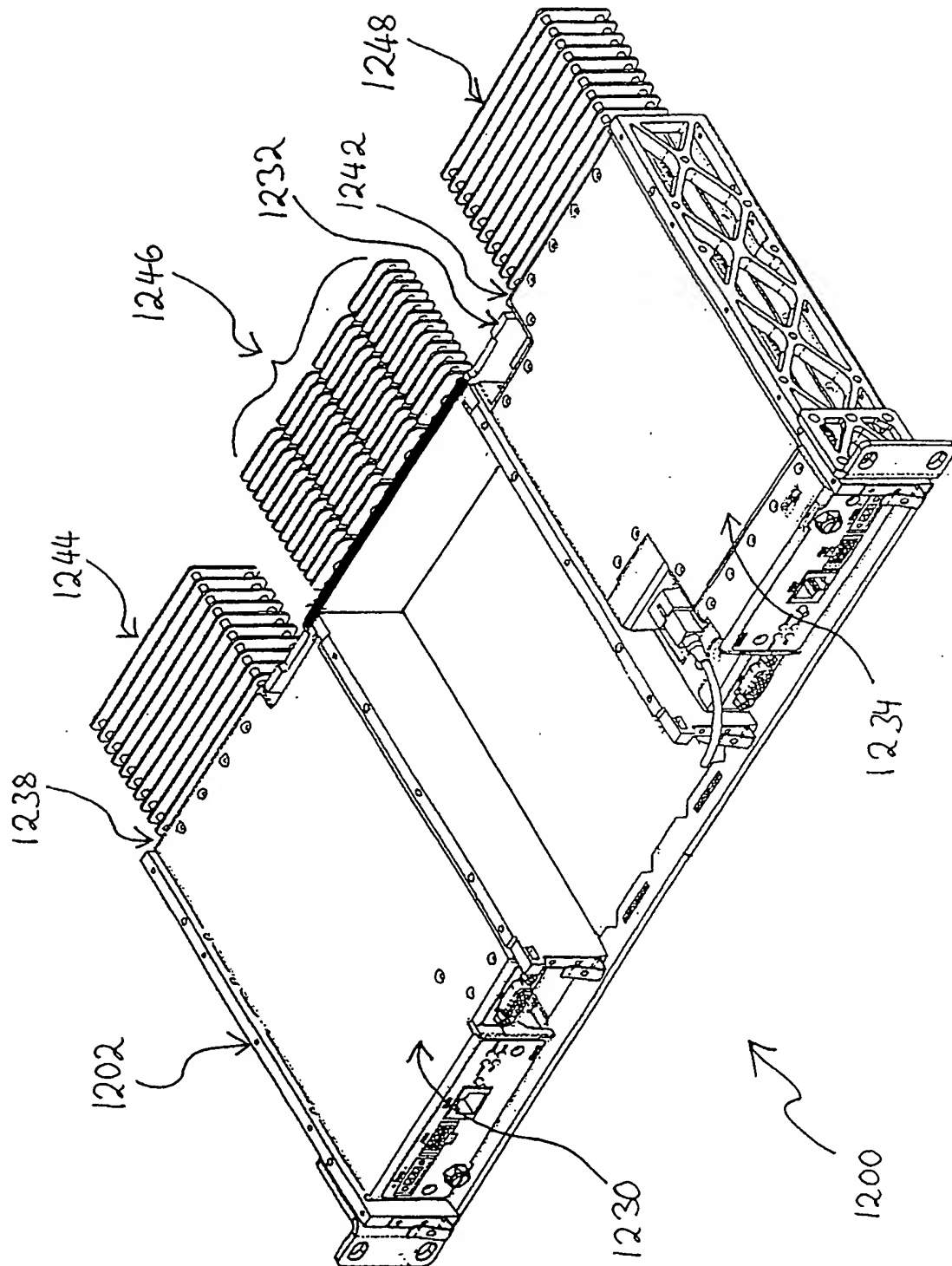


Fig. 16

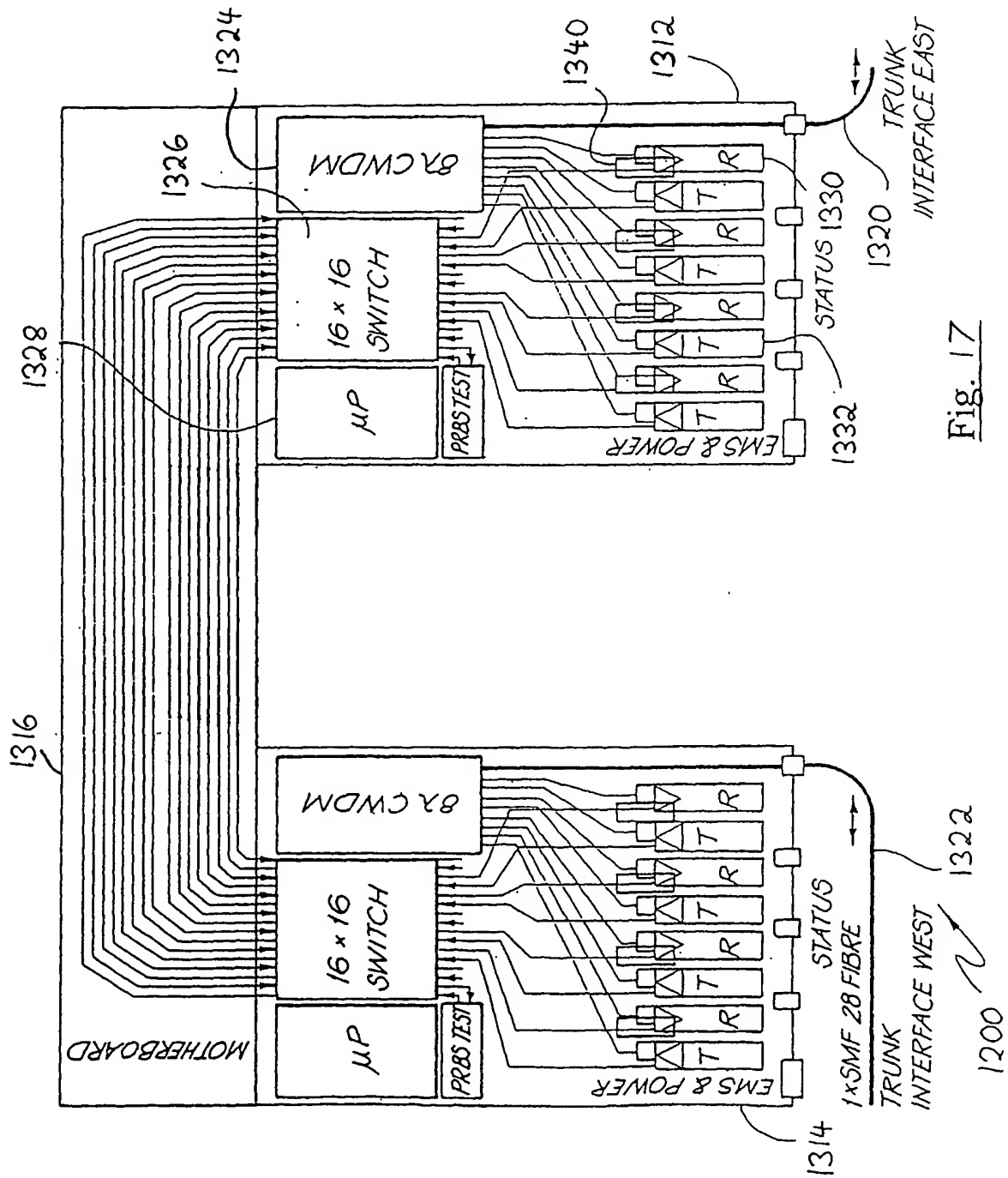


Fig. 17